Attorney's Docket No.: 06618-641001
Client's Ref. No. CIT 3221

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Applicant : Marcel Gavriliu et al. Art Unit : 2646
Serial No.: 09/681,728 Examiner : Suhan Ni
Filed : May 29, 2001

Title : RESONANT FREQUENCY ADJUSTMENT USING TUNABLE DAMPING RODS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Attached to this facsimile communication cover sheet is a Response to Notice of Non-Compliant Appeal Brief, faxed this 20th day of April 2006, to the United States Patent and Trademark Office.

Respectfully submitted,

Date: April 20, 2006

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Attorney's Docket No.: 06618-641001/CIT3221

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Marcel Gavriliu et al. Art Unit: 2646
Serial No.: 09/681,728 Examiner: Suhan Ni
Filed : May 29, 2001
Title : RESONANT FREQUENCY ADJUSTMENT USING TUNABLE DAMPING RODS

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RESPONSE TO NOTICE OF NON-COMPLIANT APPEAL BRIEF

Responsive to the Notice of Non-Compliant Appeal Brief mailed March 20, 2006 (copy enclosed), applicant submits herewith a Supplemental Brief on Appeal.

It is believed that no additional papers or filing fees are required. Please apply any applicable charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: April 20, 2006

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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO.
09/681,728	05/29/2001	Marcel Gavrilio	06618/641001 / CIT 3221	3352

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EXAMINER	
NI, SUHAN	

ART UNIT	PAPER NUMBER
2646	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Atty Dkt 18-641001

Notification of Non-Compliant Appeal Brief (37 CFR 41.37)	Application No. 09/681,728	Applicant(s) GAVRILIU ET AL.	
	Examiner Suhan Ni	Art Unit 2646	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

The Appeal Brief filed on 02 March 2005 is defective for failure to comply with one or more provisions of 37 CFR 41.37.

To avoid dismissal of the appeal, applicant must file anamended brief or other appropriate correction (see MPEP 1205.03) within **ONE MONTH or THIRTY DAYS** from the mailing date of this Notification, whichever is longer. **EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136.**

1. ☐ The brief does not contain the items required under 37 CFR 41.37(c), or the items are not under the proper heading or in the proper order.
2. ☒ The brief does not contain a statement of the status of all claims, (e.g., rejected, allowed, withdrawn, objected to, canceled), or does not identify the appealed claims (37 CFR 41.37(c)(1)(iii)).
3. ☐ At least one amendment has been filed subsequent to the final rejection, and the brief does not contain a statement of the status of each such amendment (37 CFR 41.37(c)(1)(iv)).
4. ☒ (a) The brief does not contain a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings, if any, by reference characters; and/or (b) the brief fails to: (1) identify, for each independent claim involved in the appeal and for each dependent claim argued separately, every means plus function and step plus function under 35 U.S.C. 112, sixth paragraph, and/or (2) set forth the structure, material, or acts described in the specification as corresponding to each claimed function with reference to the specification by page and line number, and to the drawings, if any, by reference characters (37 CFR 41.37(c)(1)(v)).
5. ☒ The brief does not contain a concise statement of each ground of rejection presented for review (37 CFR 41.37(c)(1)(vi))
6. ☐ The brief does not present an argument under a separate heading for each ground of rejection on appeal (37 CFR 41.37(c)(1)(vii)).
7. ☐ The brief does not contain a correct copy of the appealed claims as an appendix thereto (37 CFR 41.37(c)(1)(viii)).
8. ☐ The brief does not contain copies of the evidence submitted under 37 CFR 1.130, 1.131, or 1.132 or of any other evidence entered by the examiner **and relied upon by appellant in the appeal**, along with a statement setting forth where in the record that evidence was entered by the examiner, as an appendix thereto (37 CFR 41.37(c)(1)(ix)).
9. ☐ The brief does not contain copies of the decisions rendered by a court or the Board in the proceeding identified in the Related Appeals and Interferences section of the brief as an appendix thereto (37 CFR 41.37(c)(1)(x)).
10. ☒ Other (including any explanation in support of the above items):

In the latest Office Action (mailed 11/2/2004), claims 1-3, 5-9 and 13 are not rejected under 35 U.S.C. 103(a) as argued by applicants (please see paragraph 8)

SUHAN NI
PRIMARY EXAMINER

Suhan Ni
Primary Examiner
Art Unit: 2646

Attorney's Docket No.: 06618-641001 / CIT 3221

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SUPPLEMENTAL BRIEF ON APPEAL

Applicants are herewith filing this Supplemental Brief on Appeal in response to the March 20, 2006 Notification of Non-Compliant Appeal Brief, thereby perfecting the Notice of Appeal originally faxed on April 22, 2004 and as re-opened by Paper Number 18. The categories and subjects required by 37 CFR §41.37 follow. No fee is believed due, however, please apply any other charges or credits to Deposit Account No. 06-1050.

1. Real Party in Interest

The application is assigned of record to California Institute of Technology, who is hence the real party in interest.

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S. Gebhart
Name of Person Signing Certificate

2. Related Appeals and Interferences

There are no known related appeals or interferences.

3. Status of Claims

Claims 1-22 are pending. Of those claims, claims 4 and 14-22 are withdrawn from consideration. However, the finality of the restriction requirement remains traversed, since the same claim (claim 1) is in both group I in group II, which are noted by the restriction requirement as being "independent and distinct." It makes no sense that claim 1 can be independent and distinct from itself.

Only claims 7-9 and 13 are appealed.

4. Status of Amendments

An amendment after final was filed on April 1, 2004 and this amendment was entered in full in paper number 14.

5. Summary of Claimed Subject Matter

Claims 7 specifies the combination of attaching a tunable damping element to a resonating element shown as 210 in figure 1, and explained in the specification in paragraph 7 which describes the damping rod, attached to the enclosure resonance. Claim 1 also requires increasing attention in the resonating element to increase the resonant frequency. See paragraph 8 of the specification. Clearly a combination of Claim 7 also includes Claim 2, which specifies that the element is a rod. The increasing includes tightening, both shown in figure 1 and

paragraphs 7 and 8. Claim 6 requires that the washer be tightened on the rod. See the washer 214 in figure 1, and paragraph 7. Finally, Claim 7 requires that sound damping material is attached to the washer. See paragraph 11.

6. Issues

The issues for review are: Claims 7-9 and 13 properly indicated as being unpatentable over Koschwitz in view of Rowley.

7. Argument

Claims 1-3 and 5 stand rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Koschwitz (DE-3818-552). Claims 6-9 and 13 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Koschwitz (DE-3818-552) in view of Rowley (3,555,187). This latter contention is respectfully traversed relative to Claims 7-9 and 13, the only claims on appeal.

The rejection states that Koschwitz teaches a basic resonating element with a tension increasing part. However, the rejection admits that Koschwitz does not teach damping material of the type claimed, and specifically attempts to use Rowley to show that sound damping material.

It is respectfully suggested that the hypothetical combination of Koschwitz in view of Rowley is not a proper

combination that would be made by one having ordinary skill in the art. It is further suggested that even if the combination were made, that it would still not teach or suggest the subject matter of the presently appealed claims.

Assuming the combination were made, it would show a Rowley-type material along with a basic system of Koschwitz. The rejection and the advisory action refer to the material 26 as being a sound damping material. Admittedly, the material 26 looks in the drawing to be an o-ring. However, the material 26 is never taught or suggested as being a sound damping node--but rather is taught to be the opposite. Rowley teaches that the material 26 is used as a pressure block, in order to enhance the pickup from the stethoscope; not in order to damp the sound. The pressure block 26 is described for example in Rowley page 2 lines 70-72. The pressure plate 28 is described as having a mass which filters high frequency, but the pressure block 26 is described as being used to preload the stethoscope. The effect of this is described in column 4 beginning at line 5 and specifically that the preloading prior to use of the stethoscope "issues a greater uniformity of sound transmission...". Therefore, this is not a sound damping material, but is rather a sound enhancing material. As such, Rowley does not teach anything which would suggest modifying Koschwitz in order to

include a sound damping material of that type. In fact, Rowley teaches away from this.

Moreover, it is respectfully suggested that the hypothetical combination of Koschwitz in view of Rowley could not be operatively made by one having ordinary skill in the art. Rowley specifically teaches that frequency response characteristics of the stethoscope are changed by pressing the stethoscope harder against the patient, see column 4 of Rowley. There is no teaching or suggestion of changing any kind of pressure on the tunable damping element. Since Rowley does not include a tunable damping element, it is apparent that one having ordinary skill in the art would certainly not take away any teaching from Rowley that would suggest modifying the tunable damping element to include sound damping material.

If the hypothetical combination were made in the way suggested by the official action, it would require that a sound damping material be substituted for the material 26. If that happens, loading against the sound damping material would reduce the effectiveness of the stethoscope. Therefore, making this combination and changing the material 26 to a sound damping material, would go against the express teaching of Rowley, who teaches that the material should be conducting, in the sense that it conducts vibration, not damping as would be required by

the hypothetical combination. Therefore, it is respectfully suggested that the combination is improper under M.P.E.P. 2143, and could not be made by one having ordinary skill in the art.

Claim 7 should be allowable for these reasons. Claim 8 defines tuning the resonant element to a frequency that is related to characteristics of the sound damping material. Since there is no sound damping material, it is apparent that this additional feature is in no way taught or suggested by the cited prior art.

Claim 9 further defines further characteristics which are not taught or suggested by the cited prior art.

Claim 13 defines attaching a sound damping material to the enclosure and tuning the enclosure to an optimum frequency of the sound damping material. Neither of the items of cited prior art teach or suggest anything about tuning using sound damping

material; much less the optimum frequency as defined.

Therefore, this claim should be additionally allowable.

Respectfully submitted,

Date: April 20, 2006

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Attachments:

Claims Appendix

Evidence Appendix

Related Proceedings Appendix

Appendix of Claims

1. (Previously presented) A method, comprising: attaching a tunable damping element to a resonating element; and increasing an amount of tension in said resonating element to increase a resonant frequency of the resonating element in a way that decreases an effect of stimulated audio on the resonating element.

2. (Original) A method as in claim 1, wherein said tunable damping element includes a rod which is connected to said resonating element, and wherein said increasing includes tightening said tunable damping element, to increase an amount of tension in said resonating element.

3. (Original) A method as in claim 1, wherein said resonating element includes a cabinet with facing surfaces, and said rod extends between said facing surfaces to tension said alternating surfaces relative to one another.

4. (Withdrawn) A method as in claim 1, wherein said resonating element includes an automobile.

5. (Original) A method as in claim 1, wherein said resonating element includes a speaker enclosure.

6. (Original) A method as in claim 2, wherein said tightening comprises providing a washer on the rod, and tightening the washer against a surface of the resonating element.

7. (Original) A method as in claim 6, further comprising coupling a sound damping material to said washer.

8. (Original) A method as in claim 7, wherein said increasing comprises tuning the resonating element to a frequency related to characteristics of the sound damping material.

9. (Original) A method as in claim 8, wherein said characteristics include a maximum frequency of maximum sound absorption of the sound damping material.

10. (Original) A method, comprising: forming an audio enclosure which produces audio frequencies at a specified frequency; and tuning a resonant frequency to increase a

resonant frequency of the enclosure to a level outside of a bandwidth of the audio frequencies.

11. (Original) A method as in claim 10, wherein said resonant frequency tuning comprises using a variable tension device to increase a tension of said audio enclosure.

12. (Original) A method as in claim 11 wherein said variable tension device comprises a rod with threads, which is selectively tightened to increase a tension.

13. (Original) A method as in claim 12, further comprising attaching a sound damping material to the enclosure, and wherein said tuning comprises tuning the enclosure to an optimum frequency of said sound damping material.

14. (Withdrawn) A device, comprising: a mechanical structure having opposing surfaces; and a resonant frequency tuning element, coupled between said opposing surfaces, and selectively tunable to change a resonant frequency of said mechanical structure.

15. (Withdrawn) A device as in claim 14, wherein said resonant frequency tuning element is coupled in a way to increase said resonant frequency of said mechanical structure.

16. (Withdrawn) A device as in claim 14, wherein said resonant frequency tuning element includes a threaded rod with screw threads thereon, and at least one nut which is tightened to increase a tension between said opposing surfaces of said mechanical structure.

17. (Withdrawn) A device as in claim 16, wherein said resonant frequency tuning element further includes at least one washer, which is pressed against said surfaces of said mechanical structure.

18. (Withdrawn) A device as in claim 14, further comprising a sound damping material, coupled to said resonant frequency tuning element.

19. (Withdrawn) A device as in claim 18, wherein said sound damping material is a constrained layer damping material.

20. (Withdrawn) A method, comprising: providing a sound damping material on mechanical structure, having opposing surfaces, coupled to at least one of said opposing surfaces, and operating to damp at least part of an effect of sound on said mechanical structure; and tuning a resonant frequency of said mechanical structure, to a value which is within an optimum range for said sound damping material.

21. (Withdrawn) A method as in claim 20, wherein said sound damping material is a constrained layer damping material.

22. (Withdrawn) A method as in claim 20, wherein said tuning comprises increasing a tension between said opposing surfaces to increase a resonant frequency of said structure.

Evidence Appendix

None.

Related Proceedings Appendix

None.